1LT Paul Keller (Foreground), a Student at the Field Artillery Captain's Career Course (FACCC), Fort Sill, Oklahoma, listens to a description of the Reset block of the FACCC, 8 April 2009. (Photo by Jason Scott Kelly)

PME for FA Officers and Warrant Officers

By LTC Christopher P. Talcott, MAJ Cornelius L. Morgan and CW3 Scott W. McKnight, all FA

The "how" and "what" of educating Field Artillery (FA) officers and warrant officers (WO) is a hot topic within Training and Doctrine Command (TRADOC) and the US Army FA School (USAFAS) at Fort Sill, Oklahoma. The article "MTTs—Resetting FA Core Competencies" by CSM (R) Jeffrey L. Moyer written for the July-September 2008 edition of *Fires* Bulletin appropriately highlighted a need to restore core-competency training in our professional military education courses. CSM Moyer's article succinctly identified key challenges facing our FA leaders—skills atrophy due to multiple nonstandard missions and limited time to reset in the Army Force Generation (ARFORGEN) cycle.[1]

In direct support of the Chief of FA's FA Campaign Plan to Sustain Soldiers, Leaders, and Families, Win the Current Fight, Reset, and Transform for Future Operations, this article highlights how the officer and WO professional military education (PME) courses are adapting to balance the training and education requirements to produce a competent, confident and technically and tactically proficient FA leader.[2]

Outcomes Based Training and Education Environment (OBTE)—the How. PME for the Officer Education System (OES) at USAFAS has been "shifting fires" during the past year from Task, Condition and Standards training focused on teaching our leaders "what to think" to the OBTE philosophy, using the Adaptive Leader Methodology (ALM), which educates our leaders on the "how to think." Major (R) Don Vandergriff's instructional ALM focuses the learner on the "why" and encourages an interactive student-centered learning environment vice the traditional instructor-centered one.

Traditional instructor-centered learning (such as PowerPoint learning) uses demonstrations and lectures as the basis to impart knowledge.[3] In contrast, ALM focuses the instructor to use techniques that require the learner to participate actively in this process. Techniques like case studies, discovery learning, simulations, Problem-Based Learning (PBL) and Inquiry Learning are used in the classroom. The "product" we produce,

using ALM, are leaders whose learning creates higher cognitive level outputs (creating, evaluating and analyzing) vice lower cognitive levels (remembering and understanding).

With that, USAFAS and the institutional training that occurs at the Fires Center of Excellence at Fort Sill is committed to providing the best educational practices available to produce the Field Artilleryman who is military occupational specialty (MOS)-qualified and ready to provide lethal and nonlethal expertise to your unit. The rest of this article highlights FAOES courses as we evolve and develop the techniques necessary to incorporate ALM and keep these courses relevant and current in support of the current fight.

FA Captain's Career Course (FACCC). For the FACCC, the challenge is deciding "what" to educate Artillerymen on is exacerbated by the continued nonstandard missions. For fiscal year 2008 (FY08), almost 60 percent of the captains who attended the FACCC did not perform a traditional FA job. For our first two FACCCs in FY09 (Classes #1-09 and #2-09), the trend continues with half of the captains never serving as a fire direction officer, fire support officer or platoon leader.

Our challenge is the balance of common core competencies education (such as *Field Manuals 3-0 Operations, 5-0 Army Planning and Orders Production, 6-0 Mission Command: Command and Control of Army Forces,* and *7-0 Training For Full Spectrum Operations*) with the responsibility to reset our captain's FA core competency capabilities. Future changes to the FACCC are forthcoming within TRADOC with an emphasis of common core education being the majority of instruction and a smaller portion of time dedicated to branch specific technical or tactical training.

Nonetheless, the current FACCC executed a new 24-week program of instruction (POI) in January 2009, essentially expanding four weeks from an original 20-week course. This new course consists of three primary blocks of instruction: core competency block, lethal and nonlethal integration block and assignment oriented training block. Upon graduation from the course, officers, for example, have an opportunity to attend follow-on courses such as Electronic Warfare, Fire Support Coordination Course, Joint Forward Observer Course and the Joint Firepower Control Course.

The core competency block starts with three weeks of traditional gunnery (manual gunnery, automated, ballistics and troubleshooting). Following gunnery, the captains spend four weeks resetting their core-competency Artillery skills in fire direction, delivery systems and fire support. Battery command and leadership instruction are also a part of the core competency block and are taught early in the course as a foundation. The last focus of the core competency block is nonlethal operations which includes the embedded Tactical Information Operations Course.

The lethal and nonlethal integration block incorporates command and control, current hybrid combat operations (including Iraq and Afghanistan), the process of processes (such as the Military Decision-Making Process or MDMP) and stability operations. The intent is an officer who can take his expertise as an Artilleryman (core competency skills and battery command) and learn to integrate them as part of full-spectrum operations.

The assignment oriented training block is a week dedicated to the captain's next assignment. It provides an additional opportunity to spend time on specific weapon systems and focus on specific weapon-system maintenance. A portion of graduates will be slotted to serve as Iraqi or Afghan army advisors (military transition team members). We have a POI dedicated to get them focused on that fight as well with officers from Fort Riley, Kansas, coming to Fort Sill. The "product" of our FACCC is a captain ready to execute his job as a battalion fire support officer, battalion fire direction officer or battery commander.

FACCC Initiatives. FACCC education includes a greater emphasis on cultural understanding. Fort Sill employs outside university professors to educate captains. Most recently, a Middle East expert from Cameron University, Lawton, Oklahoma, conducted a lecture for FACCC. A second initiative includes media training. Students have the opportunity, in cooperation with the University of Oklahoma in Norman, to be videotaped conducting a media interview with a media student. This gives the captain an opportunity to be critiqued by the civilian interviewer from a civilian perspective and by a small group leader from a military perspective.

Another initiative is a strong relationship with the combat training centers (CTCs). Examples include collaboration on the publication of the Fire Support Whitepaper, November 2008, and we currently are working an FA Operations Whitepaper. Additionally, FACCC small group leaders routinely visit the Joint Readiness Training Center (JRTC), Fort Polk, Louisiana, or the National Training Center (NTC), Fort Irwin, California, quarterly to capture lessons learned and

CPT Ashton J. Read, Commander of A Battery, 2nd Battalion, 82nd Field Artillery, 3rd Brigade Combat Team, 1st Cavalry Division, Fort Hood, Texas, is interviewed by The Military Channel, 3 June 2008. The FACCC provides an opportunity for students to be interviewed by college media students to prepare for future media relations. (Photo by PVT Sharla Perrin)

current trends and tactics, techniques and procedures (TTPs) to be taught at the FACCC.

Basic Officer Leadership Course III (BOLC III). This 15-week and four-day course evolved drastically during the past six to eight months. New education initiatives include nonlethal skill development in information operations and company intelligence support teams capable of intelligence, surveillance, and reconnaissance planning; patrol pre-briefings and debriefings; and use of the pattern analysis wheel, time event matrices, association matrices and the associated impact on predictive analysis. Additionally, our lieutenants receive training on the new analytical software the Counter Intelligence/Human Intelligence community currently uses called AXISPRO.

With respect to lethal skill development, we introduced offensive and defensive "patrol lanes" to increase our officers' overall exposure and application to the fire support planning process by an increase of 20 hours. This developmental training deliberately allows increased time for them to receive an operations order, formulate a fire support plan and brief/rehearse the plan. As a result of this adjustment, students now spend twice as much time in the field than they did a year ago.

The Gunnery Department made significant improvements in the course instruction given to lieutenants. New updates in dealing with Modular Artillery Charge System (MACS), Excalibur, Digital Fire Control System (DFCS), and Advanced Field Artillery Tactical Data System (AFATDS) already have been implemented or are in the process of being implemented in FY09. All manual gunnery lesson plans, exams and practical exercises currently are being revised with M777 howitzers, MACS charges and AM-3 Tabular Firing Tables.

Additionally, the Gunnery Department implemented instruction in dealing with the M982 Excalibur projectile. Instruction focuses on teaching lieutenants weapon characteristics and AFATDS mission processing during the automated special situations class. The Gunnery Department has revised portions of its AFATDS instruction, to include DFCS, in preparation for M777A2s and M119A3s. DFCS instruction will continue to improve with course updates and software revisions.

Ultimately, automated instruction will revolve completely around DFCS for M777s and M119A3s. AFATDS 6.5 is being fielded in Burleson Hall and will be implemented mid-FY09. As the Army pushes forward with digital firing capability with our primary weapons systems, automated systems to compute firing data (e.g. AFATDS, Centaurs and Tadpoles), and continues to field precision guided munitions and precision guided kits, we began the process of assessing manual gunnery training (how much we train and how we train it).

This future BOLC III redesign will include more time allotted to automated gunnery and less to manual gunnery. Additionally, we are working on our teaching of gunnery and ballistics theory searching for potential simulations or gaming to augment this training. The expectation of our maneuver commanders in the current hybrid fight is that we, as the Field Artillery, are capable of precision and accuracy, with added mobility and responsiveness. As such, training at Fort Sill will reflect this.

FACCC Students CPT Alex Tesar, CPT Randy Overstreet and Capt Richard Stinnet (USMC) stand by for Section Chief verification to fire, March 2009.

Warrant Officer Education System (WOES). Similarly, with needed changes in the captain and lieutenant courses, emerging changes to the Warrant Officer Advance Course (WOAC) curriculum are based on professional discussions with WOAC classes to outline gaps within the WOES. The outlined gaps within the MOS 131A Field Artillery Targeting Technician's WOES can be summarized as "Warrant officers at the brigade and division level[s] are facing many challenges due to the contemporary operating environment (COE). These challenges emerge from their lack of self-development (doctrine revisions are detrimentally slow and deployment-cycles do not facilitate attending professional development). Home-station training is not based on the realities of theater operations; this leads them to not knowing the enemy (ever-evolving threats in Iraq and Afghanistan) and not understanding the terrain (cultural awareness and understanding)."[4]

These changes to WOES are also a direct result based on the facts that, out of the 12 students that composed WOAC 04-08 and 01-09, six out of 12 never trained at a CTC, and seven out of 12 never conducted the MDMP after graduating from Warrant Officer Basic Course (WOBC). Furthermore, seven out of 12 students never have been assigned as a maneuver brigade targeting officer. Proactive mentoring by our senior 131As consistently has been outlined by the students as one of the solutions that must be implemented; however, personal accountability must be at the forefront of any and all solutions.

These observations have led to several initiatives directed at updating lesson plans. A trip to Iraq to discuss evolving threats as they pertain to fire support doctrine and initiatives which impact the practical application of lethal and nonlethal fires; attendance of the Military Intelligence CCC "Targeting Process" periods of instruction to gather TTPs to synchronize the Intel Collection Cycle process with the Fires War Fighting Function—are two such initiatives.

WOBC. The eight-month and 11-day WOBC curriculum is weighted on the fundamentals of the three, primary warfighting functions (WFFs) that comprise a brigade combat team (BCT) staff; Maneuver, Intelligence and Fires with subcomponents consisting of current operations and planning cells. During the first 17 weeks, WOBC focuses on all the systems the 131A is working with or around, to include Command Post of the

Future, Joint Automated Deep Operations Coordination System (JADOCS) and AFATDS.

A key component of the WOBC curriculum is the Collateral Damage Estimate Course. We introduce the students to MDMP and walk them through each part as it pertains to each primary WFF with small injections by the ancillary functions such as psychological operations, civil-military operations, civil affairs and tactical information operations. We train in as much detail as possible, placing the students in situations that will force them to apply problem-solving using the methodical steps of MDMP in each respective WFF.

We then start the foundational portion of the Army Targeting Process focusing on Decide, Detect, Deliver and Assess (D^3A), emphasizing the application of assets both lethal and nonlethal against threats and problem sets. We also have the students develop and conduct a Find, Fix, Finish, Exploit, Analyze and Disseminate (F^3EAD) targeting methodology to D^3A comparison brief, giving them an understanding of how both processes are complementary in purpose, but differ in focus.

We finalize the curriculum with our capstone exercise, where students are assigned leadership roles that parallel the three WFFs and assigned into current operations and planning cells, placing them in a simulation pushing the functions to unify and solve problems as a single unit. Halfway through the exercise we reverse their roles and continue the same processes with different missions and focuses.

There are 24-hour MDMP periods injected with each half of the class, at which time the students are required to brief the WOBC instructor, the WOAC instructor or a guest in the rank of lieutenant colonel or higher. Finally, the students' last requirement in the Targeting Phase is a seminar on contemporary topics dealing with today's Army and its future.

WOAC. The nine-week and three-day WOAC curriculum is weighted on the three primary WFFs that comprise a division staff: Maneuver, Intelligence and Fires. The difference is the tier-level of emphasis is at the operational and strategic levels rather than the tactical level. The WOAC expands the focus to prepare 131As with advanced concepts of Army and joint doctrine for the three primary WFF to familiarize students with the duties expectations a senior staff officer at division, corps and echelons above corps levels.

The WOAC curriculum is comprised of a three-pronged approach. An overt emphasis on reinforcing doctrine of the primary WFF, coupled with a Middle Eastern cultural awareness seminar; an in-depth overview of systems (hardware and software) that provides a common operational picture, and a series of video-teleconferences (VTCs) with senior FA warrant officers assigned to BCT, division and corps staffs who are deployed (to either Iraq or Afghanistan). We also use NTC and JRTC to give an emphasis at cross-pollination of current counterinsurgency TTPs as well as FA warrant officer training and education issues.

The VTCs with 131As serving at both the division and brigade levels, as well as the CTCs, add valuable training and mentoring for the WOAC students beyond the institutional approach because they provide a forum for feedback and TTP sharing.

Officer PME at Fort Sill remains committed to being relevant and ready in educating and training our officers in support of the maneuver force commanders in the current and future fights. Our end state remains a Field Artilleryman, MOS qualified, ready to make an immediate impact on his next unit of assignment.

Endnotes:

1. CSM (R) Jeffrey L. Moyer, "MTTs—Resetting FA Core Competencies," *Fires* Bulletin, July-September 2008, available online at **http://sill-www.army.mil/firesbulletin/**.
2. MG Peter M. Vangjel, Draft Operations Order 002-08: Field Artillery Campaign – US Army Fires Center of Excellence and Fort Sill, 01 September 2008, available online at **https://www.us.army.mil/suite/doc/13697166**.
3. MAJ Peter M. Sittenauer and MAJ Cornelius L. Morgan, "FACCC: Redesigned for Today and Tomorrow," *Fires* Bulletin, July-September 2008, available online at **http://sill-www.army.mil/firesbulletin/**.
4. CW4 Jimmy A. Gomez "FA Targeting Technician, Quarterly Newsletter, 2nd Quarter FY09: WOAC Update" available online at: **https://www.us.army.mil/suite/portal/index.jsp.**

Chief Warrant Officer Two Shannon Mowery, a student at the Warrant Officer Advanced Course at Fort Sill, Oklahoma, learns to use the Command Post of the Future (CPOF). CPOF empowers Warfighters to visualize the battlespace and synchronize the elements of combat power while simultaneously collaborating and sharing data in near-real time, April 2009. (Photo by Jason Scott Kelly)

Lieutenant Colonel Christopher P. Talcott, Field Artillery (FA), is the Battalion Commander for 1st Battalion, 30th FA (1-30 FA), Fires Center of Excellence (CoE), Fort Sill, Oklahoma, which has the responsibility for FA officer and warrant officer basic and advanced courses training and education. Previously, he served as a Professor of Military Science at the University of California – Los Angeles; the Battalion Executive Officer for 1-82 FA, deployed in support of Operation Iraqi Freedom (OIF) II; and the Brigade Fire Support Officer, 5th Brigade, 1st Cavalry Division, deployed in support of OIF II. He was an Assistant Professor at the US Military Academy, West Point, New York; and the Battery Commander for C Battery, 4-42 FA, Fort Hood, Texas. He holds a master's degree in Engineering Psychology from Wright State University, Dayton, Ohio.

Major Cornelius L. Morgan, FA, is the Senior Instructor and Battery Commander at the FA Captain's Career Course at Fires CoE. He served as an Observer/Controller at the National Training Center, Fort Irwin, California. Previously, he was the Battalion Fire Direction Officer (FDO) and Assistant Battalion S3 for 4-27 FA in Baumholder, Germany, with duties as a Task Force FSO for 2-6 Infantry. He was the Service Battery Commander for 4-27 FA, deploying in support of OIF, conducting combat operations in Baghdad and An Bar Province. He also served as a Battery FDO, Armor Company Fire Support Officer and Battalion Targeting Officer in 2-82 FA, 1st Cavalry Division, Fort Hood, Texas. He holds an MA of Management and Leadership from Webster University at St. Louis, Missouri.

Chief Warrant Officer Three Scott W. McKnight, FA, is the Primary Phase One Targeting Instructor for the Warrant Officer Basic Course at the Warrant Officer Instruction Branch, Fires CoE. He served as the Senior Brigade Targeting Observer/Controller at the Joint Readiness Training Center, Fort Polk, Louisiana. Previously, he served as the Brigade Targeting Officer for 2nd Brigade, 10th Mountain Division (Light), in Fort Drum, New York, deploying in support of OIF. He also served as a Q-36 Radar Section Leader for 2-15 FA, deploying in support of both Operation Enduring Freedom I and OIF II.